

Puckett Land Co.

Rio Blanco Co., CO

Sec.34-T1S-R98W

Puckett RG Federal 2G-34D

Wellbore #1

Plan: Plan #2

Pathfinder Planning Report

02 September, 2010



Database: EDM 2003.16 Single User Db
Company: Puckett Land Co.
Project: Rio Blanco Co., CO
Site: Sec.34-T1S-R98W
Well: Puckett RG Federal 2G-34D
Wellbore: Wellbore #1
Design: Plan #2

Local Co-ordinate Reference: Well Puckett RG Federal 2G-34D
TVD Reference: WELL @ 6758.0ft (Original Well Elev)
MD Reference: WELL @ 6758.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project Rio Blanco Co., CO

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: Colorado Northern Zone

System Datum: Mean Sea Level

Site Sec.34-T1S-R98W

Site Position:
From: None
Position Uncertainty: 0.0 ft

Northing: ft
Easting: ft
Slot Radius: "

Latitude:
Longitude:
Grid Convergence: 0.00 °

Well Puckett RG Federal 2G-34D

Well Position **+N/-S** 0.0 ft **Northing:** 0.00 ft **Latitude:** 36° 7' 5.969 N
+E/-W 0.0 ft **Easting:** 0.00 ft **Longitude:** 115° 39' 12.952 W
Position Uncertainty 0.0 ft **Wellhead Elevation:** ft **Ground Level:** 6,745.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2010/08/19	12.53	61.31	49,205

Design Plan #2

Audit Notes:

Version: **Phase:** PLAN **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	21.81

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,288.6	10.10	21.81	1,287.1	23.6	9.4	3.50	3.50	0.00	21.81	Target RG Fed #2G-3
5,667.1	10.10	21.81	5,597.7	736.4	294.7	0.00	0.00	0.00	0.00	
5,955.6	0.00	0.00	5,884.8	760.0	304.1	3.50	-3.50	0.00	180.00	
11,854.8	0.00	0.00	11,784.0	760.0	304.1	0.00	0.00	0.00	0.00	PBHL RG Fed #2G-3

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North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP / Start Build 3.50°									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	3.50	21.81	1,099.9	2.8	1.1	3.1	3.50	3.50	0.00
1,200.0	7.00	21.81	1,199.5	11.3	4.5	12.2	3.50	3.50	0.00
Start 4378.5 hold at 1288.6 MD									
1,288.6	10.10	21.81	1,287.1	23.6	9.4	25.4	3.50	3.50	0.00
1,300.0	10.10	21.81	1,298.3	25.4	10.2	27.4	0.00	0.00	0.00
1,400.0	10.10	21.81	1,396.8	41.7	16.7	44.9	0.00	0.00	0.00
1,500.0	10.10	21.81	1,495.2	58.0	23.2	62.4	0.00	0.00	0.00
1,600.0	10.10	21.81	1,593.7	74.3	29.7	80.0	0.00	0.00	0.00
1,700.0	10.10	21.81	1,692.1	90.5	36.2	97.5	0.00	0.00	0.00
1,800.0	10.10	21.81	1,790.6	106.8	42.7	115.1	0.00	0.00	0.00
1,900.0	10.10	21.81	1,889.0	123.1	49.3	132.6	0.00	0.00	0.00
2,000.0	10.10	21.81	1,987.5	139.4	55.8	150.1	0.00	0.00	0.00
2,100.0	10.10	21.81	2,085.9	155.7	62.3	167.7	0.00	0.00	0.00
2,200.0	10.10	21.81	2,184.4	171.9	68.8	185.2	0.00	0.00	0.00
2,300.0	10.10	21.81	2,282.8	188.2	75.3	202.7	0.00	0.00	0.00
2,400.0	10.10	21.81	2,381.3	204.5	81.8	220.3	0.00	0.00	0.00
2,500.0	10.10	21.81	2,479.7	220.8	88.3	237.8	0.00	0.00	0.00
2,600.0	10.10	21.81	2,578.2	237.1	94.9	255.3	0.00	0.00	0.00
2,700.0	10.10	21.81	2,676.6	253.4	101.4	272.9	0.00	0.00	0.00
2,800.0	10.10	21.81	2,775.1	269.6	107.9	290.4	0.00	0.00	0.00
2,900.0	10.10	21.81	2,873.5	285.9	114.4	308.0	0.00	0.00	0.00
3,000.0	10.10	21.81	2,972.0	302.2	120.9	325.5	0.00	0.00	0.00
3,100.0	10.10	21.81	3,070.4	318.5	127.4	343.0	0.00	0.00	0.00
3,200.0	10.10	21.81	3,168.9	334.8	133.9	360.6	0.00	0.00	0.00
3,300.0	10.10	21.81	3,267.3	351.0	140.5	378.1	0.00	0.00	0.00
3,400.0	10.10	21.81	3,365.8	367.3	147.0	395.6	0.00	0.00	0.00
3,500.0	10.10	21.81	3,464.2	383.6	153.5	413.2	0.00	0.00	0.00
3,600.0	10.10	21.81	3,562.7	399.9	160.0	430.7	0.00	0.00	0.00
3,700.0	10.10	21.81	3,661.1	416.2	166.5	448.3	0.00	0.00	0.00
3,800.0	10.10	21.81	3,759.6	432.5	173.0	465.8	0.00	0.00	0.00
3,900.0	10.10	21.81	3,858.0	448.7	179.5	483.3	0.00	0.00	0.00
4,000.0	10.10	21.81	3,956.5	465.0	186.1	500.9	0.00	0.00	0.00
4,100.0	10.10	21.81	4,054.9	481.3	192.6	518.4	0.00	0.00	0.00
4,200.0	10.10	21.81	4,153.4	497.6	199.1	535.9	0.00	0.00	0.00
4,300.0	10.10	21.81	4,251.8	513.9	205.6	553.5	0.00	0.00	0.00
4,400.0	10.10	21.81	4,350.3	530.1	212.1	571.0	0.00	0.00	0.00
4,500.0	10.10	21.81	4,448.7	546.4	218.6	588.5	0.00	0.00	0.00
4,600.0	10.10	21.81	4,547.2	562.7	225.1	606.1	0.00	0.00	0.00
4,700.0	10.10	21.81	4,645.6	579.0	231.7	623.6	0.00	0.00	0.00
4,800.0	10.10	21.81	4,744.1	595.3	238.2	641.2	0.00	0.00	0.00
4,900.0	10.10	21.81	4,842.5	611.6	244.7	658.7	0.00	0.00	0.00

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Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,000.0	10.10	21.81	4,941.0	627.8	251.2	676.2	0.00	0.00	0.00
5,100.0	10.10	21.81	5,039.4	644.1	257.7	693.8	0.00	0.00	0.00
5,200.0	10.10	21.81	5,137.9	660.4	264.2	711.3	0.00	0.00	0.00
5,300.0	10.10	21.81	5,236.3	676.7	270.8	728.8	0.00	0.00	0.00
Wasatch G									
5,300.7	10.10	21.81	5,237.0	676.8	270.8	729.0	0.00	0.00	0.00
5,400.0	10.10	21.81	5,334.8	693.0	277.3	746.4	0.00	0.00	0.00
5,500.0	10.10	21.81	5,433.2	709.2	283.8	763.9	0.00	0.00	0.00
5,600.0	10.10	21.81	5,531.7	725.5	290.3	781.4	0.00	0.00	0.00
Fort Union									
5,608.4	10.10	21.81	5,540.0	726.9	290.8	782.9	0.00	0.00	0.00
Start Drop -3.50°									
5,667.1	10.10	21.81	5,597.7	736.4	294.7	793.2	0.00	0.00	0.00
5,700.0	8.95	21.81	5,630.2	741.5	296.7	798.7	3.50	-3.50	0.00
5,800.0	5.45	21.81	5,729.4	753.1	301.3	811.2	3.50	-3.50	0.00
5,900.0	1.95	21.81	5,829.2	759.1	303.7	817.6	3.50	-3.50	0.00
Start 5899.2 hold at 5955.6 MD									
5,955.6	0.00	0.00	5,884.8	760.0	304.1	818.6	3.50	-3.50	0.00
Target RG Fed #2G-34D P2									
5,970.8	0.00	0.00	5,900.0	760.0	304.1	818.6	0.00	0.00	0.00
6,000.0	0.00	0.00	5,929.2	760.0	304.1	818.6	0.00	0.00	0.00
Top of gas									
6,059.8	0.00	0.00	5,989.0	760.0	304.1	818.6	0.00	0.00	0.00
6,100.0	0.00	0.00	6,029.2	760.0	304.1	818.6	0.00	0.00	0.00
6,200.0	0.00	0.00	6,129.2	760.0	304.1	818.6	0.00	0.00	0.00
6,300.0	0.00	0.00	6,229.2	760.0	304.1	818.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,329.2	760.0	304.1	818.6	0.00	0.00	0.00
6,500.0	0.00	0.00	6,429.2	760.0	304.1	818.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,529.2	760.0	304.1	818.6	0.00	0.00	0.00
6,700.0	0.00	0.00	6,629.2	760.0	304.1	818.6	0.00	0.00	0.00
6,800.0	0.00	0.00	6,729.2	760.0	304.1	818.6	0.00	0.00	0.00
6,900.0	0.00	0.00	6,829.2	760.0	304.1	818.6	0.00	0.00	0.00
Ohio Creek									
6,901.8	0.00	0.00	6,831.0	760.0	304.1	818.6	0.00	0.00	0.00
7,000.0	0.00	0.00	6,929.2	760.0	304.1	818.6	0.00	0.00	0.00
7,100.0	0.00	0.00	7,029.2	760.0	304.1	818.6	0.00	0.00	0.00
Mesaverde									
7,173.8	0.00	0.00	7,103.0	760.0	304.1	818.6	0.00	0.00	0.00
7,200.0	0.00	0.00	7,129.2	760.0	304.1	818.6	0.00	0.00	0.00
7,300.0	0.00	0.00	7,229.2	760.0	304.1	818.6	0.00	0.00	0.00
7,400.0	0.00	0.00	7,329.2	760.0	304.1	818.6	0.00	0.00	0.00
7,500.0	0.00	0.00	7,429.2	760.0	304.1	818.6	0.00	0.00	0.00
7,600.0	0.00	0.00	7,529.2	760.0	304.1	818.6	0.00	0.00	0.00
7,700.0	0.00	0.00	7,629.2	760.0	304.1	818.6	0.00	0.00	0.00
7,800.0	0.00	0.00	7,729.2	760.0	304.1	818.6	0.00	0.00	0.00
7,900.0	0.00	0.00	7,829.2	760.0	304.1	818.6	0.00	0.00	0.00
8,000.0	0.00	0.00	7,929.2	760.0	304.1	818.6	0.00	0.00	0.00
8,100.0	0.00	0.00	8,029.2	760.0	304.1	818.6	0.00	0.00	0.00
8,200.0	0.00	0.00	8,129.2	760.0	304.1	818.6	0.00	0.00	0.00
8,300.0	0.00	0.00	8,229.2	760.0	304.1	818.6	0.00	0.00	0.00
8,400.0	0.00	0.00	8,329.2	760.0	304.1	818.6	0.00	0.00	0.00
8,500.0	0.00	0.00	8,429.2	760.0	304.1	818.6	0.00	0.00	0.00

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Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,600.0	0.00	0.00	8,529.2	760.0	304.1	818.6	0.00	0.00	0.00
8,700.0	0.00	0.00	8,629.2	760.0	304.1	818.6	0.00	0.00	0.00
8,800.0	0.00	0.00	8,729.2	760.0	304.1	818.6	0.00	0.00	0.00
Top of continuous gas									
8,874.8	0.00	0.00	8,804.0	760.0	304.1	818.6	0.00	0.00	0.00
8,900.0	0.00	0.00	8,829.2	760.0	304.1	818.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,929.2	760.0	304.1	818.6	0.00	0.00	0.00
9,100.0	0.00	0.00	9,029.2	760.0	304.1	818.6	0.00	0.00	0.00
9,200.0	0.00	0.00	9,129.2	760.0	304.1	818.6	0.00	0.00	0.00
9,300.0	0.00	0.00	9,229.2	760.0	304.1	818.6	0.00	0.00	0.00
9,400.0	0.00	0.00	9,329.2	760.0	304.1	818.6	0.00	0.00	0.00
9,500.0	0.00	0.00	9,429.2	760.0	304.1	818.6	0.00	0.00	0.00
9,600.0	0.00	0.00	9,529.2	760.0	304.1	818.6	0.00	0.00	0.00
9,700.0	0.00	0.00	9,629.2	760.0	304.1	818.6	0.00	0.00	0.00
9,800.0	0.00	0.00	9,729.2	760.0	304.1	818.6	0.00	0.00	0.00
9,900.0	0.00	0.00	9,829.2	760.0	304.1	818.6	0.00	0.00	0.00
10,000.0	0.00	0.00	9,929.2	760.0	304.1	818.6	0.00	0.00	0.00
10,100.0	0.00	0.00	10,029.2	760.0	304.1	818.6	0.00	0.00	0.00
10,200.0	0.00	0.00	10,129.2	760.0	304.1	818.6	0.00	0.00	0.00
10,300.0	0.00	0.00	10,229.2	760.0	304.1	818.6	0.00	0.00	0.00
10,400.0	0.00	0.00	10,329.2	760.0	304.1	818.6	0.00	0.00	0.00
Cameo									
10,444.8	0.00	0.00	10,374.0	760.0	304.1	818.6	0.00	0.00	0.00
10,500.0	0.00	0.00	10,429.2	760.0	304.1	818.6	0.00	0.00	0.00
10,600.0	0.00	0.00	10,529.2	760.0	304.1	818.6	0.00	0.00	0.00
10,700.0	0.00	0.00	10,629.2	760.0	304.1	818.6	0.00	0.00	0.00
Rollins									
10,754.8	0.00	0.00	10,684.0	760.0	304.1	818.6	0.00	0.00	0.00
10,800.0	0.00	0.00	10,729.2	760.0	304.1	818.6	0.00	0.00	0.00
Cozette									
10,884.8	0.00	0.00	10,814.0	760.0	304.1	818.6	0.00	0.00	0.00
10,900.0	0.00	0.00	10,829.2	760.0	304.1	818.6	0.00	0.00	0.00
11,000.0	0.00	0.00	10,929.2	760.0	304.1	818.6	0.00	0.00	0.00
11,100.0	0.00	0.00	11,029.2	760.0	304.1	818.6	0.00	0.00	0.00
11,200.0	0.00	0.00	11,129.2	760.0	304.1	818.6	0.00	0.00	0.00
Corcoran									
11,213.8	0.00	0.00	11,143.0	760.0	304.1	818.6	0.00	0.00	0.00
11,300.0	0.00	0.00	11,229.2	760.0	304.1	818.6	0.00	0.00	0.00
11,400.0	0.00	0.00	11,329.2	760.0	304.1	818.6	0.00	0.00	0.00
Sego									
11,491.8	0.00	0.00	11,421.0	760.0	304.1	818.6	0.00	0.00	0.00
11,500.0	0.00	0.00	11,429.2	760.0	304.1	818.6	0.00	0.00	0.00
11,600.0	0.00	0.00	11,529.2	760.0	304.1	818.6	0.00	0.00	0.00
11,700.0	0.00	0.00	11,629.2	760.0	304.1	818.6	0.00	0.00	0.00
11,800.0	0.00	0.00	11,729.2	760.0	304.1	818.6	0.00	0.00	0.00
TD at 11854.8 - TD - PBHL RG Fed #2G-34D									
11,854.8	0.00	0.00	11,784.0	760.0	304.1	818.6	0.00	0.00	0.00

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Project:	Rio Blanco Co., CO	MD Reference:	WELL @ 6758.0ft (Original Well Elev)
Site:	Sec.34-T1S-R98W	North Reference:	True
Well:	Puckett RG Federal 2G-34D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Target RG Fed #2G-34C	0.00	0.00	5,900.0	760.9	304.5	721.17	389.41	36° 7' 13.475 N	115° 39' 9.250 W
- plan misses target center by 1.0ft at 5970.8ft MD (5900.0 TVD, 760.0 N, 304.1 E)									
- Point									
Target RG Fed #2G-34C	0.00	0.00	5,200.0	760.9	304.5	721.17	389.41	36° 7' 13.475 N	115° 39' 9.250 W
- plan misses target center by 95.7ft at 5280.1ft MD (5216.8 TVD, 673.4 N, 269.5 E)									
- Point									
PBHL RG Fed #2G-34D	0.00	0.00	11,784.0	760.9	304.5	721.17	389.41	36° 7' 13.475 N	115° 39' 9.250 W
- plan misses target center by 1.0ft at 11854.8ft MD (11784.0 TVD, 760.0 N, 304.1 E)									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
5,300.7	5,237.0	Wasatch G		0.00		
5,608.4	5,540.0	Fort Union		0.00		
6,059.8	5,989.0	Top of gas		0.00		
6,901.8	6,831.0	Ohio Creek		0.00		
7,173.8	7,103.0	Mesaverde		0.00		
8,874.8	8,804.0	Top of continuous gas		0.00		
10,444.8	10,374.0	Cameo		0.00		
10,754.8	10,684.0	Rollins		0.00		
10,884.8	10,814.0	Cozette		0.00		
11,213.8	11,143.0	Corcoran		0.00		
11,491.8	11,421.0	Sego		0.00		
11,854.8	11,784.0	TD		0.00		

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
1,000.0	1,000.0	0.0	0.0	KOP / Start Build 3.50°
1,288.6	1,287.1	23.6	9.4	Start 4378.5 hold at 1288.6 MD
5,667.1	5,597.7	736.4	294.7	Start Drop -3.50°
5,955.6	5,884.8	760.0	304.1	Start 5899.2 hold at 5955.6 MD
11,854.8	11,784.0	760.0	304.1	TD at 11854.8